

ACC NR: AM5027749

Problems of investigating the troposphere by means of refractometers, the mean level of signals, meteorological conditions and topography, fluctuation of arrival angles and distortions of antenna-directivity patterns, losses in antenna gain, and quick and slow fading of signal levels are discussed. The statistical characteristics of the signals at diversity reception in time, space, frequency and angle as well as the distortion of signals in the communication systems are also investigated. The long-distance propagation theory is analyzed, and the engineering method of calculating field intensity at long-distance tropospheric propagation is given. At present, there is no theory of Long-Distance Tropospheric Propagation which can be applied effectively enough in practice. Thus, in the investigation of that propagation, considerable attention has to be paid to experiments. The special characteristics of geographical conditions of the territory involved should be taken into consideration during the analysis of experimental data and in their practical application because the conditions of propagation in arctic and tropical climates differ from those existing over seas and continents. A considerable part of the monograph deals with the investigation of long-distance tropospheric propagation carried out over dry land routes, 800 km long, in the central part of the USSR under the general supervision of B. A. Vvedenskiy and A. G. Arenberg (up to 1957). V. I. Siforov investigated problems con-

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nected with distortions and fluctuations of signals. References follow each chapter.

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Cord 9/10

SOV/120-59-2-16/50

AUTHORS: Kilin, S.F., Prosin, G.P., and Rozman, I.M.

TITLE: A Multi-frequency ~~Phase~~ Fluorometer with Double Frequency-Changing (Mnogochastotnyy fazovyy fluorometr s dvoynym preobrazovaniyem chastoty)

PERIODICAL: Priory i tekhnika eksperimenta, 1959, Nr 2, pp 57-59 (USSR)

ABSTRACT: Much progress has recently been made in fluorometry directed to fast processes. Sensitivities of 2×10^{-11} sec have been attained (Ref 1), which are not accessible with pulse techniques applied to photomultipliers and oscilloscopes. Phase fluorometers measure the fluorescence time τ_f , which is defined by

$$\omega \tau_f \equiv \tan \varphi = \frac{\int_0^{\infty} R(t) \sin \omega t dt}{\int_0^{\infty} R(t) \cos \omega t dt},$$

where φ is the phase shift between the emitted and exciting fluxes, ω is the modulation frequency, and $R(t)$ is the fluorescence decay law. In general, τ_f is a function of ω ; only if the decay is exponential law is τ_f independent of frequency and the same as the mean life of the fluorescence τ . The decay law cannot be established unambiguously by measuring τ_f at different

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A. Multi-Frequency Phase Fluorometer with Double Frequency-Changing frequencies (Ref 2), but such measurements can be used to determine whether the decay is exponential, and to test any proposed decay law. Strictly speaking, only unperturbed molecules fluoresce exponentially. Quenching agents cause the decay to deviate from exponential (Refs 3-5). Bimolecular quenching occurs when the emission is excited by ionizing radiation with a heavy ionization density; the decay law is then much affected (Refs 6,7). Scintillations excited in this way show an initial sharp peak, which passes gradually into an exponential decay. If primary photons play a major part in the scintillation (Ref 8), the photon cascades these primaries produce must give a decay curve that shows an initial rising section. Attempts to establish the decay curve for anthracene have given entirely contradictory results (Refs 9,10). If the modulation frequency is not too low, i.e. if $\sin \omega t$ (or $\cos \omega t$) has time to change appreciably during the mean decay time, t_m , χ_f is sensitive to the shape of the decay curve, and the shape of the $\chi_f(\omega)$ spectrum may be used to indicate roughly the form of the decay curve. The phasemeter system

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A Multi-Frequency Phase Fluorometer with Double Frequency-Changing described previously (Ref 11) has been extended by adding units to perform phase measurements at 8, 12, 15 and 20 Mc/s. Fig 1 shows the block diagram. The mixer, 1, receives frequencies f_1 and f_2 from a quartz oscillator and from a GSS-6 signal generator. A resonant circuit selects the beat frequency $F_1 = f_1 - f_2$ and feeds it to an electron-beam modulator. The mixer, 2, receives the frequency F_1 from the photomultiplier (which detects the fluorescence), and f_2 from the GSS-6. A resonant circuit selects the frequency $F_2 = F_1 + f_2 = f_1$. Thus the double frequency-changing enables one to make phase measurements at a fixed frequency of 20 Mc/s, whereas the beam is modulated at frequency F_1 . Now F_1 differs greatly from f_1 and f_2 , and so the various frequencies can be separated very thoroughly by the filters. The frequency f_1 (20 Mc/s) is stable (quartz oscillator), so the main causes of phase drift are frequency instability in the GSS-6 and instabilities in the resonant circuits, in the electron beam, and in the photomultiplier (an FEU-25). Under the most unfavourable conditions, with $F_1 < f_2$ (modulation frequency 8 Mc/s),

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A Multi-Frequency Phase Fluorometer with Double Frequency-Changing when $\Delta f_2/F_1 > \Delta f_2/f_2$ the zero drift is about 0.50/min. An 8-position sample-holder is used to change the sample and check the zero reading quickly. Numerous measurements made with the instrument indicate that the root-mean-square error is about 1%. Fig 2 gives some results for plastic phosphors, (Ref 12). The fluorescent additives were excited by the light produced in a separate polystyrene disc ($\lambda = 310 \text{ m}\mu$), which was excited by a modulated beam of 30 kV electrons. The plastic phosphors containing tetraphenylbutadiene and triphenylpyrazoline showed no dependence of τ_f on frequency, within the experimental error. Calculations show that τ_f should fall uniformly with frequency if the decay consists of two components, both exponential but with different values of τ . The anthracene content of 10^{-2} g/g (Fig 2, curve 3), gives $\tau_1 = 2.7 \times 10^{-9} \text{ sec}$ and $\tau_2 = 16 \times 10^{-9} \text{ sec}$. Anthracene in benzene gives the same value of τ_1 , (Ref 13); τ_2 relates to anthracene bound to polystyrene, (Ref 14). The phase difference between the modulated electron beam and the fluorescence has to be measured in this method; the two signals are of different physical

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SOV/120-59-2-16/50

A Multi-Frequency Phase Fluorometer with Double Frequency-Changing types. There are several ways of making the measurement (Refs 11, 15). If we use several different frequencies to measure the phase difference between two different values of τ , we can draw up enough equations to determine τ_1 and τ_2 , and to eliminate the unknown initial phase of the electron beam. Measurements made with several pairs of phosphors show that it is impossible to get agreement between the values of τ_1 and τ_2 for all combinations of the frequencies (any two frequencies suffice to give τ_1 and τ_2 , so the number of combinations is 6). Hence the decay laws are not exponential. The results for polystyrene (which is the basis of the most plastic phosphors) can be explained if we suppose that some of the excited molecules interact with one another, i.e. that bimolecular processes occur. We would get the reverse dependence of τ_f on frequency if we were to assume primary photons present. Some more detailed aspects of this topic will form the subject of a separate paper.

Card 5/6 This is a complete translation apart from Fig 1.
There are 2 figures and 15 references, of which

SOV/120-59-2-16/50
A Multi-Frequency Phase Fluorometer with Double Frequency-Changing

3 are German, 4 are English, 7 are Soviet and 1 is translated from English.

Fig 2 captions are: Relation of γ_f to modulation frequency for various phosphors. 1) tetraphenyl butadiene in polystyrene, 3×10^{-4} g/g; 2) triphenylpyrazoline in polystyrene, 2×10^{-2} g/g; 3) anthracene in polystyrene, 10^{-2} g/g.

Card 6/6

SUBMITTED: February 13, 1958

L 45163-66 EWT(d)/EWP(1) IJP(a) BB/GG

ACC NR: AP6027521 (A) SOURCE CODE: UR/0317/66/000/005/0036/0039

AUTHOR: Tenen, D., (Colonel); Prosin, N., (Colonel)

ORG: none

TITLE: Training equipment 16

SOURCE: Tekhnika i vooruzheniye, no. 5, 1966, 36-39

TOPIC TAGS: training equipment, logic circuit, military training

ABSTRACT: A description and specifications are given of a trainer designed for both group and individual training of military personnel in subjects programmed beforehand. The trainer is a set of electromechanical and radio engineering logic circuits providing simultaneous control of the rate at which the material is mastered. The trainer operates under four regimes: group training with an instructor, group training without an instructor, group and individual control, and, finally, individual training. A block diagram, circuits, and an overall view of the device are given in the original article. [DW]

SUB CODE: 09/ SUBM DATE: none/

Card 1/1 *acum*

ESTATOVA, Ye.T.; PROSIN, P.I.

Revision of wage rates at the Omsk Petroleum Refinery. Neftianik 3
no.5:28-29 My '58. (MIRA 11:9)

1. Starshiy inzh. Tsentral'nogo byuro normativov truda (for Estato-
va) 2. Nachal'nik otдела труда i zarplaty Omskogo neftepererabaty-
vayushchego zavoda (for Prosin).
(Omsk--Petroleum refineries) (Wages)

PROSIN, P. I.

92-58-5-26/30

AUTHORS: Estakov, Ye. T., Senior Engineer, and Prosin, P. I., Head of the Personnel and Pay Department of the Qash Refinery

TITLE: Tentative Revision of Workmen's Wages at the Qash Refinery (Opt
peredstroyni zarabotnoy platy rabochikh na Qashku neftepererabaty-
vayushchem zavode)

PERIODICAL: Neftyanik, 1958, Nr 5, pp 28-29 (USSR)

ABSTRACT: The Qash refinery has tentatively adopted a new method of remunerating its workmen. The author states that this is in line with measures taken in connection with the proposed revision of wage scales and of technical assignment regulations. The new wage schedule, shown by the author in table 1, provides a scale containing 8 categories. As compared with the previous wage scale, the refinery rates were raised on the average by 38 percent. The new rates and the old ones are indicated by the author in table 2. The wage increases made it possible to reclassify jobs and to widen the scope of workmen specialization. The incentive reward system has also been revised. Piece-rate pay has been left unchanged for a certain category of jobs. For some jobs

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52-58-5-26/30

Tentative Revision of Workmen's (Cont.)

temporary piece-rate scale has been introduced. Thanks to the joint efforts of workmen, management and supervisors, the organization of work improved and it became possible to fulfill 127 percent of the work assigned by the plan. The contract-bonus rate scale has been raised by 3-6 percent and it has been decided that the highest bonus of an individual workman should not exceed 40 percent of his regular pay. In table 3 the author shows the amount of monthly pay received on the basis of the revised scale by operators of thermal cracking units, atmospheric-vacuum pipe stills, and by mechanics of different categories. The introduction of the new pay scale for workmen raised the productivity of labor. However, there are still numerous problems relating to the remuneration of workmen which have not yet been solved. There are 3 tables.

ASSOCIATION: Tsentral'noye byuro normativov truda (Central Bureau of Labor Regulations); Otdel truda i zarplaty Quskozo MFZ (Personnel and Pay Department of the Qusik Refinery)

1. Petroleum industry--USSR
2. Personnel--Compensation

Card 2/2

L 9882-66 EWP(e)/EWT(m)/EWP(b) DM/WH

ACC NR: AP6003965

SOURCE CODE: UR/0089/65/019/003/0311/0312

AUTHOR: Bochvar, I. A.; Keirim-Markus, I. B.; Moiseyev, A. A.; Prosina, T. I.; Yakubik, V. V.

ORG: none

TITLE: Measurement of the background external radiation exposure of the urban population in the USSR

SOURCE: Atomnaya energiya, v. 19, no. 3, 1965, 311-312

TOPIC TAGS: radiation dosimeter, gamma irradiation, radioactive contamination, man

ABSTRACT: Preliminary results are presented of the measurement of the background external exposure of small groups of people from 26 cities in the USSR. The studies were started in the second half of 1963. Individual dosimeters of the infrared spectroscopic type using thermoluminescent aluminophosphate glass were employed, allowing gamma doses from 0.02 to 2×10^5 rads to be measured. Ten people from each city wore the dosimeters continually for 167 to 325 days. The drop in instrument readings during the time of exposure was measured for control dosimeters. A table of results and error limits is given. Analysis of the data showed that the exposure levels depend largely on the type of rocks and soils in the cities; attempts to observe a correlation between exposure dose and latitude or height above sea level were unsuccessful. Orig. art. has: 1 table. NA

SUB CODE: 06 / SUBM DATE: 01Apr65 / ORIG REF: 002 / OTH REF: 004

Card 1/1

UDC: 539.16.04

BOCHVAR, I.A.; KEIRIM-MARKUS, I.B.; MOISEYEV, A.A.; PROSINA, T.I.;
YAKUBIK, V.V.

Measuring the exposure of town inhabitants in the U.S.S.R. to
background radiation. Atom. energ. 19 no.3:311-312 S '65.
(MIRA 18:9)

ACCESSION NR: AP4034803

S/0293/64/002/002/0304/0306

AUTHOR: Bochvar, I. A.; Vasil'yeva, A. A.; Keirim-Markus, I. B.;
Prosina, T. I.; Sergeyeva, N. A.; Uspenskiy, L. N.

TITLE: Tissue dose of cosmic radiation received by V. P. Bykovskiy and
V. V. Tereshkova during tandem orbital flight

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 2, 1964, 304-306

TOPIC TAGS: tandem flight, Vostok 5, Vostok 6, cosmic radiation,
thermal neutrons

ABSTRACT: Dosimetric readings taken during tandem orbital flights of
the Vostok-5 (Bykovskiy) and the Vostok-6 (Tereshkova) show that the
cosmic radiation doses absorbed by cosmonauts were 80 ± 5 mrad and
 44 ± 5 mrad, respectively. Comparison of the above figures with measure-
ments taken during preceeding flights show that the average intensity
of the absorbed radiation was $0.65 \text{ mrad} \times \text{hr}^{-1}$ or $16 \text{ mrad} \times 24 \text{ hr}^{-1}$.
The estimates of absorbed doses of thermal neutrons were $(1 \pm 15) \cdot 10^{-4}$ and
 $(7 \pm 15) \cdot 10^{-4}$ rem for the Vostok-5 and the Vostok-6, respectively. There-
for the respective fluxes of thermal neutrons were $(1 \pm 16) \cdot 10^5$ and

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ACCESSION NR: AP4034803

$(8 \pm 16) \cdot 10^5 \text{ cm}^{-2}$ while their densities were 0.2 ± 4 and $3 \pm 7 \text{ cm}^{-2} \cdot \text{sec}^{-1}$, respectively. The radiation levels on the outer skin of the space capsules were approximately 2—3 times higher than inside the space ships.

ASSOCIATION: none

SUBMITTED: 14Oct63

DATE ACQ: 20May64

ENCL: 00

SUB CODE: AM

NO REF SOV: 004

OTHER: 002

Card 2/2

BOCHVAR, I.A.; VASIL'YEVA, A.A.; KEIRIM-MARKUS, I.B.; PROSINA, T.I.;
SYRITSKAYA, Z.M.; YAKUBIK, V.V.

Ionizing radiation dosimeters based on measuring the thermolumi-
nescence of aluminum phosphate glasses (IKS dosimeters). Atom.
energ. 15 no.1:48-52 J1 '63. (MIRA 16:8)
(Radiation—Dosage) (Aluminum phosphates)

PROSINA, Z.

Machinery--Construction

Young machine builders, Tekh. molod. no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

KOTWICA, Stanislaw; PROSINSKI, Antoni; RUCINSKA, Zofia; SULAT, Henryk

Neurological changes in atrophic dermatitis of Pick-Hezzheimer
(with a report of 3 cases) Neurologia etc. polska 11 no.1:33-42
Ja-F '61.

1. Z Kliniki Chorob Nerwowych AM w Lodzi Kierownik: prof. dr nauk
med. E. Herman.

(ACRODERMATITIS case reports)
(NEUROLOGICAL MANIFESTATIONS)

PROSINSKI, J.

Economic results of panolux, improved leather. p.153.
PRZEGŁAD SKORZANY (Centralne Zarzady Przemysłu Ciepłarskiego, Obuwniczego i
Artykułów Skorzanych) Łódź.
Vol. 10, no. 7, July 1955.

So. East European Accessions List Vol. 5, No. 9 September 1956

PROSINSKI, S.; GIECENICZ, T.

The influence of moisture upon the yield of products from the destructive distillation of wood.

p. 15 (Prace) Vol 3, no. 4, 1957, Poznan, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN.1958

PROSINSKI, Stanislaw; CZECHOWSKI, Zdzislaw; LUTOMSKI, Kazimierz

Tars and oils obtained in xylite thermolysis as wood protection agents. Koks 9 no. 1:30-33 Ja-F '64.

1. Department of Chemical Technology of Timber, College of Agriculture, Poznan.

PROSINSKI, Stanislaw; ADANSKI, Zefiryn; SKIBA, Stanislaw

Possibilities of utilizing wood waste in order to obtain lignin construction material. Roczniki wyz szkola rol Poznan 16: 79-90 '63.

1. Department of Chemical Technology of Wood, College of Agriculture, Poznan.

PROSINSKI, Stanislaw; CZECHOWSKI, Zdzislaw; HULISZ, Stanislaw

Allyl alcohol occurring in some fractions of distillate obtained in hardwood pyrolysis. Roczniki wyz szkola rol Poznan 16: 125-133 '63.

1. Department of Chemical Technology of Wood, College of Agriculture, Poznan.

PROSINSKI, Stanislaw; CZECHOWSKI, Zdzislaw; HULISZ, Janina; HULISZ, Stanislaw

Studies on the possibility of using certain products obtained in the thermolysis of coniferous wood for solubilization of naphthalene in gas pipes. Koks 7 no.6:242-243 N-D '62.

1. Katedra Chemicznej Technologii Drewna, Wyzsza Szkola Rolnicza, Poznan, i Fabryka Rozkladowej Destylacji Drewna, Gryfino.

STANISLAW, S

POLAND/Chemical Technology - Chemical Products and Their
Application. Wood Chemistry Products. Hydrolysis
Industry.

I-9

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2657
Author : Prosinski Stanislaw, Giecowicz Tadeusz
Inst : Institute of Wood Technology
Title : Effect of Moisture Content of Wood on the Yield of Products
of Thermal Decomposition
Orig Pub : Prace Inst. technol. drewna, 1957, 3, No 4, 15-33
Abstract : With increasing moisture content of the wood an increase
takes place in the yield of aqueous distillate, and to a
lesser extent in that of acids, CH_3OH and charcoal.
Increased moisture content has a detrimental effect on the
yield of uncondensable gases and tar. It is shown that op-
timal moisture content of wood that is subjected to distil-
lation is 12-18%.

Card 1/1

PROSINSKI, Stanislaw; PRZYBYLAK, Antoni

From research works on the extract obtained from stump wood
of the green Scotch pine (*Pinus Silvestris* L.) Pt. 1.
Attempts to obtain fraction of resin acids. Sylwan 106 no.3:
1-9 '62.

1. Zaklad Chemicznej Technologii Drewna Instytutu Technologii
Drewna i Katedra Chemiczna Technologii Drewna, Wyzsza Szkola
Rolnicza, Poznan.

POLAND/Chemical Technology. Chemical Products
and Their Applications. Corrosion. Cor-
rosion Control.

H-4

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 23734

Author : Prosinski, S., Giecwiczowa, P.

Inst : -

Title : Investigation of Corrosive Action of Pro-
ducts Derived from the Destructive Distil-
lation of Wood on Certain Metals.

Orig Pub : Prace Inst. technol. drewna, 1958, 4, No 2,
46-58

Abstract : Corrosion resistances of Cu, of acid-resi-
stant steel and of 98 percent purity Al
with respect to raw liquor, to extract (4.6
percent CH_3COOH), black acid (57 percent

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POLAND/Chemical Technology. Chemical Products
and Their Applications. Corrosion. Cor-
rosion Control.

H-4

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 23734

CH_3COOH), to waste waters (3.4 percent CH_3COOH) and to gaseous media was investi-
gated. The obtained results indicate that:
1) Al possesses the greatest stability to
black acid under operating conditions of
the equipment involved (the decrease in
weight in the liquid phase - 1.6 percent,
and of the gaseous phase - 0.8 percent);
Cu is the next (decrease in weight when in
the liquid phase - 1.1 percent, when in the
gaseous phase - 12.5 percent); the acid-resi-
stant steel is unstable under the above con-
ditions. 2) In the raw liquor the most stable

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POLAND/Chemical Technology. Chemical Products
and Their Applications. Corrosion. Cor-
rosion Control.

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Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 23734

material is the acid resistant steel
(decrease in weight when in the vapor
phase was not detected); the least resi-
stant is Al. 3) In the waste water, the
acid resistant steel is the most stable
material (the decrease in weight, when in
the liquid phase is 0.0 percent, in the va-
por phase it is 3.3 percent); Cu is the next
(the decreases in weight are 0.0 percent and
3.2 percent in liquid and vapor phases respec-
tively). The resistance of Al is less than
those of steel and copper. 4) As for the ex-
tract (experiment of 600 hour duration), the

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POLAND/Chemical Technology. Chemical Products
and Their Applications. Corrosion. Cor-
rosion Control.

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Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 23734

acid-resistant steel is stable in either
liquid or vapor phases. The decrease in
the weight of Cu is 4.5 percent. -- F.
Slonyanskaya

Card : 4/4

PROSIVSKI S.

5787

822.712.820.191.2

Prósniński S., Głecwiczowa P. Corrosion of Certain Metals by Products of Destructive Wood Distillation.

„Badania nad korozją niektórych metali przez produkty rozkładowe destylacji drewna”, (Prace Inst. Technol. Drewna. No. 2), Poznań, 1958, PWN, 13 pp., 8 figs., 12 tabs.

Investigations were undertaken to study the effect of certain derivatives of destructive wood-distillation on certain metals, and to ascertain which metals are most suitable for manufacture of parts of industrial apparatus. An examination was made of the effect on Polish made copper M_1 , Polish α Al (KNR), acid-resistant steel, and aluminium (98% of pure Al content) of the following products: 1) raw mixture; 2) extract (4.8% of vinegar acid content); 3) black acid (37% of vinegar acid content); 4) waste liquors (0.4% of vinegar acid content). Tests were carried out under conditions resembling those in industry. The investigations resulted in the following order of suitability of the three metals for apparatus intended to be kept in contact with black acid: aluminium — average loss in weight of samples after 140 hours, liquid state 1.8% and volatile state 0.8%; copper — comparable loss in weight 1.1% and 12.5%; steel, acid resistant — lowest resistance to black acid, average loss in weight, respectively 45.6% and 70.3%. Steel showed, on the other hand, relatively good resistance to raw mixture (loss in weight of samples after 140 hours was 0.0% for liquid and volatile state alike); least

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HE2C

CORROSION OF CERTAIN . . .

resistant in this respect was aluminium (with 17% loss in weight for liquid state and 9% for volatile). A fairly good resistance to waste liquors was shown also by acid resistant steel (loss in weight of samples after 140 hours, liquid state 0.0% and volatile state 3.3%); copper came next (comparable percentage losses — 3.2% and 0.0%). Aluminium was found to have a lower resistance to the action of waste liquors. Acid resistant steel is not affected by action of the extract (loss in weight of samples after 600 hours was, for liquid and volatile state, 0.0%). Copper was somewhat corroded by extract (loss in weight 4.5%).

PROSINSKI, Stanislaw; CZECHOWSKI, Zdzislaw

Separation of pyrocatechin from the phenol fraction of leaf wood tar by means of butyl acetate. Koks smola gaz 6 no.6:215-218 '61.

1. Wyzsza Szkola Rolnicza w Poznaniu, Katedra Chemicznej Technologii Dzewna.

PROSINSKI, Stanislaw; CICHOWICZ, Zofia; PAPRZYCKI, Oswald

Surface treatment of porous fiberboard to protect it from moisture. Roczniki wyz szkola rol Poznan 16:101-123 '63.

1. Department of Chemical Technology of Wood, College of Agriculture, Poznan.

PROSINSKI, Stanislaw; ADAMSKI, Zefiryn; BABICKI, Ryszard;
GRZECZYNSKI, Tadeusz

Chemical composition and some physical and mechanical
properties of poplar wood from a plantation irrigated by
town sewage. Roczniki wyz szkola rol Poznan 16:91-100
'63.

1. Department of Chemical Technology of Wood, College
of Agriculture, Poznan.

PROSINSKI, Stanislaw; ADAMSKI, Zefiryn

Studies on beechwood digestion in hydrotropic solutions.
Roczniki wyz szkola rol Poznan 16: 67-77 '63.

1. Department of Chemical Technology of Wood, College
of Agriculture, Poznan.

PROSINSKI, Stanislaw; SURMINSKI, Janusz; HAUF, Barbara

Chemical composition of narrow-leaved reed (*Typha angustifolia*)
and experiments in obtaining cellulose pulp from it. Roc-
zniki wyz szkola rol Poznan 16: 135-139 '63.

1. Department of Chemical Technology of Wood, College
of Agriculture, Poznan.

PROGINSKI, STANISLAW.

Nasycanie drewna sosnowego roztworem fluorku sodu.

Poznan /Panstwowe Wydawn. Naukowe/ 1959. 56 p. Poland.
(Poznanskie Towarzystwo Przyjaciol Nauk. Komisja Nauk Rolniczych i Lesnych.
Prace, t.6, zesz. 2)

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960

Uncl.

PROSINSKI, St.; BABICKI, R.

On a new method of cellulose determination by using diluted solutions of nitrogen and sodium hydroxide. Sylwan 104 no.1:95-99 Ja '60.

1. Zaklad Chemicznej Technologii Drewna, Instytut Technologii Drewna, Warszawa.

10

CA

Trametenonic acid from Trametes odorata. W. Gruber and G. Proke (Univ., Vienna). *Monatsh.* 81, 837-42 (1950).—The fungus *Trametes odorata*, which grows on old stumps of firs and pines, was dried in air, pulverized in a mill, and 750 g. extd. with Et₂O for 14 days, then with EtOH at 0.5 atm. The EtOH fraction (2.5 g.) contained only tannic acid and phlobaphene. The 5 g. amorphous white powder from the Et₂O extn., repeatedly crystd. from MeOH with animal charcoal, gave an acid, *trametenonic acid* (I), colorless silky needles, m. 250-81°, $[\alpha]_D^{25}$ 47.27° (MeOH), sublimes without decompn. at 200-220°, has the compn. C₂₁H₃₂O₅ (\approx C₁₀H₁₆), and contains a CO₂H and a secondary OH group. I with CH₃N₃ gives the *Me ester* (II), m. 127-8°, $[\alpha]_D^{25}$ 58.79° (CHCl₃), which, heated 10 hrs. with 5% KOH, gave I. I with Ac₂O and pyridine (2:1) gave acetyltrametenonic acid, m. 200-11°, aspond. to I. Acetylation of II gave Me acetyltrametenolate, m. 104-6°, aspond. to I. II left with 1.1 mols. chromic acid in chromic-acid stabilized AcOH, and the deep green soln. extd. with Et₂O, dried, and recrystd. from low-boiling benzine with Al₂O₃, gave *Me trametenonate* m. 105-7° (oxime, m. 178-9°), which with 10% KOH in H₂O gave *trametenonic acid*, m. 204-6°. Like the triterpene derivs., II splits off H₂O, probably with contraction of the ring, when shaken 12 hrs. with PCl₅ in abs. petr. ether, dild. with Et₂O, washed with KOH and H₂O, dried, adsorbed on Al₂O₃, and washed with petr. ether, giving a compd. m. 122-4°, $[\alpha]_D^{25}$ 62.07° (CHCl₃). I

with PtO, in alc. at 20° and 760 mm. absorbed 1.7 mols. H₂ to give a hydrogenated product, m. 277-81°, which indicates the presence of a double bond. The mol. could consist of 6 isoprene residues with 3 O atoms. It must be a triterpene but does not correspond with any known hydroxytriterpene carboxylic acids.
Janet E. Austin

CA

10

Trametenolic acid. II. Conversion to the parent hydrocarbon. W. Gruber and G. Frenke (Univ. Vienna). *Monatsh.* 81, 1084-8 (1950); cf. *Chem. Ber.* 83, 1978g. — Trametenolic acid, $R(:CHOH)CO_2H$ ($R = C_6H_5 - CH_2$) (I), was converted to trametenol, $R(:CH_2)Me$ (II), by 3 methods. *Me* trametenolate (III) (6.1 g.) in 200 cc. abs. ether dropped slowly into 25 cc. ether contg. 0.5 g. AlH_3 (IV), boiled, poured into ice water, acidified, and dried, gave 3.5 g. *dist.* $R(:CHOH)CH_2OH$ (V), m. 199-200°; diacetate, m. 108-9°, $[\alpha]_D^{25} 53.10^\circ$ ($CHCl_3$). V with $p-MeC_6H_4SO_2Cl$ in C_6H_5N gave the *p-toluenesulfonate* which could not be purified but was reduced with IV and chromatographed with Al_2O_3 , giving trametenol, $R(:CHOH)Me$ (VI), m. 146-7°, $[\alpha]_D^{25} 60.40^\circ$ ($CHCl_3$); acetate, m. 134-5°. VI treated with PCl_5 in the same way as III, lost H_2O to give a product m. 130-2°, $[\alpha]_D^{25} 69.5^\circ$. V (400 mg.) oxidized with CrO_3 in $AcOH$ and the product heated 1 hr. with 1.5 cc. NH_4OH in 60 cc. (CH_3OH), 400 mg. Na added, and the mixt. heated 3 hrs. at 200° gave 35% II, m. 85-7°, $[\alpha]_D^{25} 68.75^\circ$. Also, III with CrO_3 gave *Me* trametenolate, $R(CO)CO_2Me$ (VII), m. 108-7°; oxime, m. 179-8°; free acid, m. 274-6°. VII reduced with NH_4OH and Na as above gave trametenol, $R(:CH_2)CO_2H$ (VIII), m. 225-6° (9%), which with CH_3N_3 gave the *Me ester* (VIII), m. 82-3°. VIII reduced with IV gave II, m. 85-7°. mixed m.p. with II obtained above, 85-7°.

Janet R. Austin

CA

10

Trametenolic acid III. Selenium dehydration. W. Gruber and G. Proxke (Univ. Vienna). *Monatsh.* 82, 255 9 (1951); cf. C.A. 45, 7994f. -- Trametenolic acid (15 g.), m. 259-60°, heated 30 hrs. at 320-330° with 1.5 times the quantity of red Se gave off H₂O and a small amt. of volatile oil which formed no picrate or styphnate. The residue, extd. with Et₂O and C₆H₆, gave 6 g. of a thick dark brown oil which was distd. very slowly at 0.005 Torr. Below 80°, very small amts. of materials forming picrates m. 128-9° and 169° were obtained. The 80-110° fraction purified via the picrate, gave 1,2,5,6-tetramethylnaphthalene, colorless needles, m. 107-9° (picrate, orange-red needles, m. 148-50°; C₁₄H₁₀(NO₂)₄ compd., gold-yellow needles, m. 167-70°), which gave the characteristic yellow changing to brown, then to blue on heating with H₂SO₄. The 110-130° fraction, purified via the picrate, gave 1,2,7,8-tetramethylphenanthrene (I), C₁₄H₁₀, colorless shining scales, m. 154-9°; picrate, red needles, m. 184-5°; styphnate, gold-yellow needles, m. 180-2°; C₁₄H₁₀(NO₂)₄ compd., yellow needles, m. 205-6° (Engel, *et al.*, C.A. 44, 1090d). I in glacial AcOH with CrO₃ gave the quinone, m. 230-1°, which, heated 10 min. with *o*-C₆H₄NH₂ in glacial AcOH gave the quinonoline deriv., m. 115-6°. Trametenolic acid must therefore contain a phenanthrene grouping. Janet E. Austin

CH 10

Trametenolic acid. II. Conversion to the parent hyd. carbon. W. Gruber and G. Prunke (Univ. Vienna). *Monatsh.* 81, 1024-8 (1950); cf. *C.A.* 45, 1976g. — Trametenolic acid, $R(:CHOH)CO_2H$ ($R = C_{11}H_{23} + CH_2X$), was converted to trametene, $R(:CH_2)Me$ (II), by 2 methods. Me trametenolate (III) (4.1 g.) in 250 cc. abs. ether dropped slowly into 25 cc. ether contg. 0.5 g. $AlCl_3$ (IV), boiled, poured into ice water, acidified, and extd. gave 3.2 g. diol, $R(:CHOH)CH_2OH$ (V), m. 190-200°; diacetate, m. 105-6°, $[\alpha]_D^{25} 53.10^\circ$ ($CHCl_3$). V with $p-MeC_6H_4SO_3Cl$ in C_2H_5N gave the *p*-toluenesulfonate which could not be purified but was reduced with IV and chromatographed with Al_2O_3 , giving trametenol, $R(:CHOH)Me$ (VI), m. 146-7°, $[\alpha]_D^{25} 60.40^\circ$ ($CHCl_3$); acetate, m. 134-5°. VI treated with PCl_5 in the same way as III, lost H_2O to give a product m. 130-2°, $[\alpha]_D^{25} 60.5^\circ$. VI (400 mg.) oxidized with CrO_3 in $AcOH$ and the product heated 1 hr. with 1.5 cc. $NH_4OH.H_2O$ in 40 cc. (CH_2OH), 400 mg. Na added, and the mixt. heated 3 hrs. at 200° gave 35% II, m. 85-7°, $[\alpha]_D^{25} 65.75^\circ$. Also, III with CrO_3 gave Me trametenonate, $R(CO)CO_2Me$ (VII), m. 105-7°; oxime, m. 178-9°; free acid, m. 204-6°. VII reduced with NH_4OH and Na as above gave trametenic acid, $R(:CH_2)CO_2H$, m. 225-6° (9%), which with CH_3N_3 gave the Me ester (VIII), m. 92-3°. VIII reduced with IV gave II, m. 85-7°, mixed m.p. with II obtained above, 85-7°.

Janet R. Austin

CA 30

Rapid polarographic determination of sulfur, especially in vulcanization. G. E. Proske. *Kautschuk u. Gummi* 1, 339-43(1948); *Chem. Zentr.* (Russian Zone Ed.) 1949, 1, 1428.—Reflux a 0.5-g. sample 30 min. with pyridine, 30 min. more with fresh pyridine, filter, make up to 100 cc., dil. 2-10 cc. of this soln. (depending on the amt. of S present) to 10 cc. with pyridine, mix with 3 cc. of a soln. contg. 12.5 g. AcOH, 27.2 g. AcONa, 100 cc. 2% tylose soln., and 500 cc. water, and det. the S content polarographically. Either acetone or pyridine can be used as solvent in this detn. However, the atm. O present in acetone probably reacts with the S and thus introduces an error which is avoided when pyridine is used. M. G. M.

ABLOV, A.V.; D'YAKON, I.A.; IVANOVA, N.V.; PROSKINA, N.H.; CHAPURINA, L.F.

Modification of copper glycocholate. Zhur. neorg. khim. 10 no.3:
628-635 Apr '65. (MIRA 18:7)

1. Institut khimii AN Moldavskoy SSR.

30401

15.8180

S/058/61/000/009/013/050

A001/A101

AUTHORS: Ablov, A.V., Proskina, N.N.

TITLE: Light absorption by polymer compounds

PERIODICAL: Referativnyi zhurnal. Fizika, no. 9, 1961, 90, abstract 9V108 ("Uch. zap. Kishinevsk, un-t", 1960, v. 56, 17 - 23)

TEXT: The authors studied absorption spectra in the visible and ultraviolet ranges of spectrum by coordination polymers of the following composition: $\text{Co}(\text{NH}_3)_3(\text{NO}_2)_3$ (I) and $\text{Co en}(\text{NH}_3)(\text{NO}_2)_3$ (II). They show that in all cases studied the full additivity of absorption of colored ions is preserved. Absorption spectra of polymer compounds of both composition (I) and (II) differ from each other. Cobaltic hexanitrite salt ions ("geksanitrokobaltiat-ion") are very unstable in aqueous solutions, especially at pH-values > 6 . X

[Abstracter's note: Complete translation]

Card 1/1

ABIOV, A.V.; PROSKINA, N.N.; CHAPURINA, L.F.

Infrared absorption spectra of the products of the addition
of aromatic amines to cobalt, zinc, and cadmium halides.
Zhur. neorg. khim. 10 no.6:1350-1354 Ja '65.

(MIRA 18:6)

1. Institut khimii AN Moldavskoy SSR.

ABLOV, A.V.; PROSKINA, N.N.; SHAFRANSKIY, V.N.

Infrared absorption spectra of trans-dihydroxyimines of
trivalent cobalt with sulfanilamides. Zhur. neorg. khim.
10 no.6:1355-1359 Jo '65. (MIRA 18:6)

1. Institut khimii AN Moldavskoy SSR.

PROSKORYAKOV, Ye. I.

32417. PROSKORYAKOV, YE. I. Materialy k flore Turkmenistana Izvestiya Turkm. Filiala Akad. nauk SSSR, 1949, No. 1, s. 28-32.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44

ALIMDZHANOV, R.A.; BRONSHTEYN, TS.G.; PROSKORYAKOV, Ye.I., professor,
doktor biologicheskikh nauk, otvetstvennyy redaktor; ZHURAVLEV, B.S.
redaktor izdatel'stva; SHEPEL'KOV, A.T., tekhnicheskii redaktor

[Invertebrates of Zeravshan Valley; a systematic catalog of species
with an indication of the beneficial and injurious forms] Bespozvo-
nochnye shivotnye Zeravshanskoi doliny; sistematicheskii perechen'
vidov s ukazaniem poleznykh i vrednykh form. Tashkent, Izd-vo
Akademii nauk UzSSR, 1956. 348 p. (MLA 9:10)
(Zeravshan Valley--Invertebrates)

PROSKORYKOV, Ye.I.; DZHALALOV, A.S.

Biology of one of the Central Asiatic tulips. Trudy Bot.sada AN Uz.
SSR no.5:127-132 '56. (MLRA 10:2)
(Samarkand Province--Tulips)

PROSKOSHIN, D. A

AID Nr. 982-11 4 June

DIFFUSION OF SILICON AND TITANIUM IN NIOBIUM (USSR)

Arzhanyy, P. M., R. M. Volkova, and D. A. Proskoshkin. IN: Akademiya nauk SSSR, Institut metallurgii imeni A. A. Baykova, Trudy; no. 11, 1962, 78-82. S/509/62/000/011/003/019

Solid-state diffusion of Si and Ti in Nb, primarily structure and composition of the phases formed in the process of diffusion, have been studied. Specimens of niobium, containing 98.9% Nb, 0.4% Ta, 0.15% Pb, 0.13% Fe, 0.08% N, 0.09% O, 0.01% Si, 0.14% C, and 10^{-5} % B, were impregnated with silicon and titanium at temperatures of 900° to 1300°C. It was found that the diffusion layer formed at 900° to 1100°C consists of a single phase, a solid solution of titanium in NbSi₂. This phase has the same hexagonal lattice as NbSi₂ but with parameters $a = 4.779$ and $c = 6.493$ kX; its microhardness is 1200 kg/mm². Below this layer, at 1200°C and 1300°C, a second diffusion layer 5 to 6 μ thick is formed which contains 82% Nb. Its structure could

Card 1/2

AID Nr. 982-11 4 June

DIFFUSION OF SILICON [Cont'd]

S/509/62/000/011/003/019

not be determined. The total thickness of the diffusion layers depends on the temperature and duration of impregnation; e. g., in an impregnation lasting 6 hrs it varies between 21 μ at 900° and 210 μ at 1300°C. Titanium accelerates the diffusion of silicon in Nb. Oxidation tests at 1000, 1100, 1150, and 1200°C showed that for the first 20 to 100 hrs (depending on temperature) the oxidation follows a logarithmic rate. The oxidized surface is smooth. After 75 to 80 hrs at 1100°C or 18 to 20 hrs at 1200°C the oxidation rate increases sharply and the oxide layer turns spongy. However, no oxide peeling or Nb₂O₅ emergence on the surface was observed. Generally, Si-Ti diffusion coating on Nb was found to have almost 50% higher oxidation resistance than Si coating. The oxide film was found to consist of a β -phase -- Nb₂O₅ -- with lattice parameters $a = 21.38$, $b = 3.79$, and $c = 20.12$ kX and an α -phase -- SiO₂ -- with parameters $a = 5.02$ and $c = 8.22$ kX. The surface of the film consists of rutile and α SiO₂. The activation energy of oxidation was found to be 3600 kcal/mol. [ND]

Card 2/2

PROSKOURNINA, N. F.

"Sur les alcaloides de Salsola Richteri. III. Sur le salsoline, possedant une activite optique et sur l'elimination de deux alcaloides nouveaux." Proskournina, N. F., et Orekhov, A. P. (p. 1999)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii). 1937, Volume 7, No. 14.

PROSKOURNINA, N. F.

"Recherches dans le domaine du garmine et du garmaline. Communication II".
Konowalowa, R. A., Proskournina, N. F. et Orekhov, A. P. (p. 1256)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1936, Vol. 6, No. 9

PROSKOV, S. M., MIKIREV, A. Ye.

"Serpencular Solar Streams with Force Free Magnetic Fields"

Soviet Papers Presented at Plenary Meetings of Committee on Space Research
(COSPAR) and Third International Space Symposium, Washington, D. C.,
23 Apr - 9 May 62

GOCHAKOV, B.G.; PROSKOVSKIY, A.M.; SHARMAGIY, Yu.V.; MAUER, A.A.

High-frequency wave trap filters with 50 to 330 kc. attenuation
band. Energ. i elektrotekh. prom. no.1:20-22 '62. (MIRA 15:6)

1. Krymenergo.

(Electric filters)

(Electric power distribution--Communication systems)

28

u

From the youth of our sugar industry. EMANUEL PROSKORNIK. Lately Colored
 51, 13 0. J. Zuckerind Czechoslovak Rep. 56, 566 12 (1952) A historical sketch
 FRANK MARESH

ASB.SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

27

Coal and steam economy in sugar factories. W. Prokhorova. *Latv. Culture*, 56, 321-3, 329 (1958).

P. investigates the heat flow and heat losses for every phase of sugar manuf. and for each app. in the plant and indicates how the steam consumption can be diminished

Frank Matresh

ASS. SLA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED INDEXED

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PROCESSES AND PROPERTIES INDEX																										1ST AND 2ND ORDERS																									
<p>17</p> <p>The coal and steam economy in sugar factories. W. Brankowicz. Z. Zuchowicz. Technol. Rep. 63, 343-405 (1938).—See C. A. 32, (W11)7. Frank Marsh</p>																										<p>28</p>																									
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>																										<p>62-111111-111111</p>																									
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<p>GROUP 3</p>																										<p>GROUP 4</p>																									

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CA

Coal and steam economy in sugar factories. W. Pruskowicz. *Indy Cukrownik*, 50, 321-7, 323-324 (1951). P. investigates the heat flow and heat losses for every phase of sugar manuf. and for each app. in the plant and

indicates how the steam consumption can be diminished.

Frank Marech

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GOL'DMAN, A.G.; PROSKURA, A.I.; LYSENKO, S.F.

Excitation spectra of the Gudden-Pohl effect in luminophors based
on copper-activated zinc sulfide. Opt. i spektr. 18 no.5:894-896

My '65.

(MIRA 18:10)

L 64497-65 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5012623

UR/0051/65/018/005/0894/0896 50
535.373.1

44,55
AUTHORS: Gol'dman, A. G.; Proskura, A. I.; Lysenko, S. F. 44,55 44 B

TITLE: Excitation spectra of the Gudden-Pohl effect in copper-activated zinc-sulfide phosphors 7

21 47 44,55
SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 894-896

TOPIC TAGS: emission spectrum, zinc compound optic material, optic activity, phosphorescence, luminescence, photoconductivity

ABSTRACT: This is a continuation of earlier work (DAN SSSR v. 149, 1419, 1963 and v. 150, 519, 1963), in which the emission spectra of the Gudden-Pohl effect in ZnS-Cu-Sn phosphor was measured. To meas-

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ACCESSION NR: AP5012623

tion of the activation centers by short-wave illumination but also
a stable internal electric field resulting from the superposition of
an external field on the phosphor in the presence of excitation

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L 64497-65

ACCESSION NR: AP5012623

and the Gudden-Pohl flash emission centers coincide in the same
phosphor as long as there is not protective field to create special
conditions for Gudden-Pohl centers. We thank N. N. Kalibabchuk for
the author of the paper and I. A. Belodkov for preparation of the

ANS-CU, OF SPECIMENS. OFLE. ATC. HAS. 4 LKATES.

ASSOCIATION: None

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: OP

NR REF SOV: 002

OTHER: 003

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Card 3/3

L 10836-63

EWI(1)/BDS--AFFTC/ASD

ACCESSION NR: AP3000743

S/0020/63/150/003/0519/0522

AUTHOR: Gol'dman, A. G.; Member Academy of Sciences USSR; Proskura, A. I.

56
55

TITLE: The Nature of the Gudden-Pohl effect

SOURCE: AN SSSR. Doklady, v. 150, no. 3, 1963, 519-522

TOPIC TAGS: luminors, external electric field, electrons

ABSTRACT: In order to check the theory of this effect suggested by D. Currie according to which the external field empties the traps formed previously by excitation, the authors have studied this effect with the luminor ZnS-Cu, Sn described previously by them (DAN, 149, 3, 1963). The excitation was with a PRK-4 quartz lamp using UPHS-3 light filter, the long-wavelength irradiation with a 40 w bulb, LRS-3 light filter. The flash was produced with a-c field, 50 hz. The authors conclude on the basis of the results obtained that the external electric field interacts with an interval protecting electric field produced by electrons trapped on the deep levels. The properly oriented external field partly removes the protecting electrons, and the excited centers recombine with free electrons producing the flash. Orig. art. has: 2 figures.

Association: Institute of Physics, Admy. of Sciences

Card 1/4

GOL'DMAN, A.G., akademik; PROSKURA, A.I.

Determining the spectral composition of the Gudden-Pohl flash
in zinc-sulfide luminophors. Dokl. AN SSSR 149 no.3:567-570
Mr '63. (MIRA 16:4)

1. Institut fiziki AN UkrSSR. 2. AN UkrSSR (for Gol'dman).
(Zinc sulfide—Spectra)

GOL'DMAN, A.G. [Gol'dman, O.H.]; DUDNIK, V.P. [Dudnyk, V.P.]; PROSKURA, A.I.
[Proskura, O.I.]

Frequency characteristics of the brightness of electrolumi-
nescent cells with zinc-sulfide powder electroluminophors.
Ukr.fiz.zhur. 6 no.6:761-764 N-D '61. (MIRA 16:5)

1. Institut fiziki AN UkrSSR, Kiyev.
(Luminescent substances)

S/020/63/149/003/011/028
B102/B186

AUTHORS: Gol'dman, A. G., Academician AS UkrSSR, Proskura, A. I.

TITLE: Determination of the spectral burst composition in the Gudden-Pohl effect for luminophores with ZnS basis

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 3, 1963, 567-570

TEXT: The authors measured the spectra of luminescence bursts arising owing to the Gudden-Pohl effect. The luminophor was excited by filtered light from a mercury lamp; an UM-2 (UM-2) monochromator (0.5 mm slit), a photomultiplier of type $\phi 3Y-19M$ (FEU-19M) ($4 \cdot 10^{-8}$ a dark current) and a galvanometer ($0.41 \cdot 10^{-9}$ a/scale un.) were used for the measurements. Luminophors with high yield were prepared by boiling a mixture of 150 ml distilled water, 5 g special ZnS and 60 mg $SnCl_2$ for 15 min. After drying, the remaining powder was annealed (20 min, $800^\circ C$) in an open quartz ampule. The luminophor obtained was analyzed: $6 \cdot 10^{-4}$ g Sn and $7 \cdot 10^{-5}$ g Cu per g of ZnS. A layer (0.1 mm) of it was deposited between the electrodes (metal and SnO_2 -coated glass). The emission spectra have a peak at 525μ .
Card 1/2

Determination of the spectral ...

S/020/63/149/003/011/028
B102/B186

and almost Gaussian shape. The spectrum of photoluminescence is somewhat shifted with respect to the light sum spectrum of the Gudden-Pohl effect toward the short-wave side (by 0.532μ at the peak, somewhat more at the short-wave side where it forms a tail). A comparison between the spectra of photoluminescence luminosity or the light sum of G-P effect and phosphorescence luminosity 30 sec after excitation also show a similar effect: the second spectrum is broader and, especially at low intensities, shifted to the blue side. There are 4 figures.

ASSOCIATION: Institut fiziki Akademii nauk JSSR (Institute of Physics of the Academy of Sciences UkrSSR)

SUBMITTED: November 3, 1962

Card. 2/2

L 11938-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD		
ACC NR: AP6001649	SOURCE CODE: UR/0051/65/019/006/0943/0950	39
AUTHOR: ^{44,55} Gol'dman, A.G.; ^{44,55} Proskura, A.I.; ^{44,55} Lysenko, S.P.		36
ORG: none		B
TITLE: Three types of Gudden-Pohl effect and the phosphorescence of copper-activated zinc sulfide		
SOURCE: ^{44,55} Optika i spektroskopiya, v. 19, no. 6, 1965, 943-950		
TOPIC TAGS: zinc sulfide, phosphorescence, luminescent center		
ABSTRACT: ^{44,55} The authors consider a characteristic property of the Gudden-Pohl effect (GPE) which consists in the conservation for an extended period of time in the solid dielectric of a certain portion of the absorbed light energy in the form of ionized luminescence centers and electrons, with their radiation recombination controlled by the electrical field. The mechanism of GPE center excitation is considered, and three types of GPE are described. The possible interaction of these types is analyzed. The paper deals primarily with a study of the physical nature and laws of the 2nd and 3rd types of GPE, with particular attention given the derivation of the 3rd type and its control. The 2nd type is the effect arising as the result of the preliminary combined effect of shortwave radiation and the internal electric field; the 3rd type is the		
Card	1/2	UDC: 535.373

L 11938-66

ACC NR: AP6001649

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effect obtained as the result of new excitation arising without new radiation. The excited luminescence centers of the GPB in copper-activated zinc sulfide luminescent materials are regarded as phosphorescence centers protected by local fields against recombination. The characteristics of the 2nd and 3rd types of GPB are defined and methods of controlling these processes are devised. Orig. article has: 2 tables and 6 figures.

SUB CODE: 20, 11 / SUBM DATE: 06Jul64 / OTH REF: 003

beh
Card 2/2

SHUBENKO-SHUBIN, Leonid Aleksandrovich; LISETSKIY, Nikolay Longinovich;
SHVARTS, Viktor Aleksandrovich; KORZH, Petr Ivanovich; PROSKURA,
G.F., akademik, retsenzent [deceased]; YERSHOV, V.N., dotsent,
kand.tekhn.nauk, retsenzent; SOROKA, M.S., red.

[Atlas of drawings and diagrams of gas turbine units] Atlas
konstruktsii i skhem gazoturbinnnykh ustanovok. Pod obshchei red.
L.A.Shubenko-Shubina. Moskva, Gos.nauchno-tekhn.isd-vo mashino-
stroit.lit-ry, 1960. 183 p. (MIRA 14:1)

1. Chlen-korrespondent AN USSR (for Shubenko-Shubin). 2. AN USSR
(for Proskura).
(Gas turbines--Design)

34431

S/185/61/006/006/008/030
D299/D304

24,3500 (1137, 1138)

AUTHORS: Hol'dman, O.H., Dudnyk, V.P., and Proskura, O.I.

TITLE: On frequency characteristics of the brightness of electroluminescent cells with zinc-sulfide phosphors

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961, 761 - 763

TEXT: The frequency characteristic of an electroluminescent cell with a ZnS phosphor is mainly determined by its capacitance being almost linear (in case of a constant voltage), viz. $i = 2\pi fVC$. The frequency characteristic of the brightness B of a cell is approximately given by the formula $B = afk$, where a and k are constants ($0 < k < 1$). If a resistor is connected in series with the cell, a maximum appears on the frequency characteristic at a frequency that is lower, the greater the ballast resistance; the brightness decreases fast with frequencies higher than that corresponding to maximum brightness. Insertion of a capacitance in parallel with the ballast resistor, leads to a certain linearization of the characteristic. X

Card 1/2

On frequency characteristics of ...

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D299/D304

Thereby it is possible to regulate the capacitance (in a certain interval), so that the brightness becomes practically independent of the frequency. It is expedient to form a resonance circuit, by inserting an inductance. This has the following advantages: a) The voltage at the cell is increased (three- to tenfold) as compared to the source voltage; b) The brightness is greatly increased (a hundredfold); c) The current source is more efficiently used; d) The electroluminescence yield is higher. The frequency characteristics of electroluminescent elements reflect also the peculiarities of the electroluminescence mechanism. Thus, if dissimilar luminescent centers are present (ZnS-Cu, Mn), the frequency characteristics under similar electrical conditions, but in different spectral regions, have different exponents k . The frequency characteristics for the variable luminescence-component and for its constant component are in a different ratio, depending on the luminescence relaxation process. There are 4 figures. X

ASSOCIATION: Instytut fizyki AS UkrRSR (Institute of Physics of the AS UkrSSR, Kyiv) [Abstractor's note: Essentially complete translation]

Card 2/2

GOL'DMAN, A.G., akademik ~~PROSKURA~~ A.I.

On the nature of Gudden-Pohl's effect. Dokl. AN SSSR 150
no.3:519-522 My '63. (MIRA 16:6)

1. Institut fiziki AN UkrSSR. 2. AN UkrSSR (for Gol'dman).
(Phosphors---Spectra)

PROSKURKO, A.I.

Second number of the "Trudy" of the Geological Institute of
the Tajik Academy of Sciences. Izv.Otd.est.nauk AN Tadzh.SSR
no.2:113-115 '58. (MIRA 13:4)

1. Tadzhikskiy gosudarstvennyy universitet.
(Tajikistan--Geology)

FROSKURA, G.F.

DECEASED
C' 1959

1962/6

SEE ILC

HYDRAULIC ENGINEERING

MAKEYENKO, M.M.; PROSKURIN, I.G.; LEYDERMAN, G.I.; SOLNTSEVA, Z.V.;
NOVAK, V.A.; KARTELISHEV, V.T.; TSULIMOV, A., red.;
POLEVAYA, Ye., tekhn.red.

[Moldavian Economic Administrative Region] Moldavskii ekonomicheskii
administrativnyi raion. Kishinev, Gos.izd-vo "Kartia Moldoveniaske,"
1961. 168 p. (MIRA 14:6)
(Moldavia—Economic conditions)

PROSKURINA, Z.N.

Liquation of spheroidal graphite in magnesium cast iron. Dokl.
AN BSSR 4 no. 11: 466-468 N '60. (MIRA 13:12)

1. Fiziko-tekhnicheskiy institut AN BSSR. Predstavleno
akademikom AN BSSR K.V. Gorevym.
(Graphite) (Cast iron)

PROSKURA, Georgiy Fedorovich; [Proskura, H.F.]; ROZOVSKIY, I.L.
[Rozovs'kyi, I.L.], kand.tekhn.nauk, otv.red.; SOKOLOVSKIY,
L.O. [Sokolovs'kyi, L.O.], red.izd-va; RAKHLINA, N.P.,
tekhn.red.

[Hydrodynamics of turbines] Gidrodynamika turbomashyn. Vyd.3.
perer. Kyiv, Vyd-vo Akad.nauk URSR, 1959. 578 p.

(MIRA 13:3)

(Turbines)

PROSKURA, G.F.

Generalized characteristics of hydraulic-turbine runners.
Sbor. trud. Lab. gidr. mash. no.7:3-15 '58. (MIRA 12:9)
(Hydraulic turbines)

SOV/124-58-5-5347

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 55 (USSR)

AUTHOR: Proskura, G.F.

TITLE: The Theory of a Plane Cascade in a Finite Flow (Teoriya ploskoy reshetki v ogranichennom potoke)

PERIODICAL: Sb. tr. Labor. problem bystrokhod. mashin i mekhanizmov AN UkrSSR, 1955, Nr 5, pp 3-18

ABSTRACT: The author determines some of the characteristics of a stationary straight cascade containing a finite number of blades by arbitrarily introducing for the cascade a nominal specific speed which is a function of the distance between the shroud plates. This specific speed is used in an empirical expression for the coefficient of cavitation for a hydraulic turbine. The analytical results, however, do not agree with the experimental data. The content of the article fails to correspond with its title, since the peculiarities of a flow past finite cascades are not discussed.

1. Turbines--Cavitation 2. Turbines--Theory G.Yu. Stepanov

Card 1/1

PROSKURA, GEORGIY, F.

PROSKURA, GEORGIY FEDOROVICH.

Ekspperimental'naya gidroaerodinamika. Chast' I. Moskva, Gosaviaavtoizdat, 1933. 308 p., illus., plates, diagrs.

Bibliography: v. 1, p. 308.

Title tr.: Experimental hydro-aerodynamics. A course of the Kharkov Institute of Aeronautical Studies. Part I.

TL570.P75

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

IVANOV, N.V. (Kiyev, poselok Korchevatoye); KOSTENKO, I. (Vitebsk);
PROSKURA, I.F. (Kerch')

Statements by workers in keramzit enterprises. Stroi. mat. 10
no.9:36-37 S '64 (MIRA 18:2)

1. Glavnyy inzh. Korchevatskogo zavodoupravleniya (for Ivanov).
2. Nachal'nik konstruktorskogo byuro Vitebskogo kombinata stroitel'nykh materialov (for Vitebsk).
3. Rukovoditel' laboratorii legkikh zapolniteley i stroitel'noy keramiki Krymskogo filiala Gosudarstvennogo nauchno-issledovatel'skogo instituta stroitel'nykh materialov i izdeliy. (for Proskura).

PROSKURA, I.P., kand. sel'skokhoz. nauk; BACHEVSKIY, S.A.

A valuable green fallow crop. Zemledelie 27 no.5:22-30 My '65.
(MIRA 18:6)

1. Direktor opytnogo khozyaystva "Obroshino" Nauchno-issledovatel'skogo instituta zemledeliya i zhivotnovodstva zapadnykh rayonov UkrSSR (for Bachevskiy).

KIYAK, Grigoriy Stapanovich[Kyiak, H.S.]; PROSKURA, Il'ya Pavlovich;
YUKHIMCHUK, F.P.[Iukhimchuk, F.P.], kand. sel'khoz. nauk,
red.; LISOVICHENKO, Ya.V.[Lisovychenko, IA.V.], red.;
POTOTSKAYA, L.A.[Potots'ka, L.A.], tekhn. red.

[Cultivation practices and production of forage lupine seed
in western areas of the Ukraine] Agrotekhnika i nasinnytstvo
kormovoho liupynu v zakhidnykh raionakh Ukrainy. Kyiv, Vyd-
vo Ukrainskoi Akad. sel'skosp. nauk, 1962. 75 p.
(MIRA 16:5)

(Ukraine--Lupine)
(Ukraine--Seed production)

USSR/Cultivated Plants - Fodder.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15682

Author : I.P. Proskura

Inst :

Title : The Effects of Fertilizers on the Slightly Alkaloid
Lupine Yield and Fodder Quality.
(Vliyaniye udobrenniy na urozhay i kormovyye kachestva
malcoalkaloidnogo lupina).

Orig Pub : Zhivotnovodstvo, 1957, No 5, 65.

Abstract : At the kolkhoz near the city of L'vov experiments were
conducted for two years on the study of the effects of
mineral fertilization on the grain yield of the slight-
ly alkaloid Nosovskiy white-seeded lupine, on its al-
bumin and alkaloid content. The mineral fertilizers
were applied under the plow in 1955 and under a deep
spring cultivation in 1956 at the rate of 45 kilograms
of active substances per 1 hectare.

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USSR/Cultivated Plants - Fodder.

M.

Abs Jour : Ref Zhur - Biol., No 4: 1958, 15682

The grain harvest was: on plots without fertilizers 11 centners, on fertilized plots with K_k 14.6, with kainite 14.4, P_c 12.2, P_ϕ 12.3, K_k and P_c 15.6 centners per 1 ha. Potash fertilizers raised the albumin of slightly alkaloid lupine and lowered its alkaloid content. To raise the yielding capacity and lower the alkaloid nature of the lupine it is recommended that those potassium and phosphorus, P_ϕ and kainite fertilizers which are less scarce be applied under the plantings when cultivating on sandy loam soils.

Card 2/2

PROSKURA, I. P.

USSR/Cultivated Plants. Fodder Plants.

M

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68231

Author : Proskura, I. P.

Inst : Ukr SSR Western Rayon Scientific Research
Institute of Agriculture and Animal Husbandry.

Title : The Effect of Basic Agricultural Measures upon
Yields of Fodder Lupine Seed.

Orig Pub : Inform. byul. Nauk.-dosl. in-t zemlerobstva
i tvarinnitstva zakhidn. rayoniv URSR, 1957,
No 2, 42-44

Abstract : A study was conducted of the influence of
sowing dates, sowing norms, and fertiliza-
tion on the yield and quality of seed of
yellow fodder lupine (Nosovsk white-seed va-
riety) on weakly podsolized, sandy loam soils

Card : 1/2

USSR/Cultivated Plants. Fodder Plants.

M

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68231

(Bryukhovits Rayon, L'vov Oblast'). The best results were obtained when lupine was sown on early dates (not later than the first third of April), in narrow rows, and with a sowing norm of 160 kg/hectare. The maximum yield (141.8 percent of the control) was obtained by using potassium and phosphorous fertilizers together (45 kg/hectare of active material), since mineral fertilizers were very effective, especially potassium. It has been determined that potassium salt and kainite, and also superphosphate and phosphorite fertilizers have almost identical effects on lupine yields.
-- B. T. Konik

Card : 2/2